



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A1 series
 UNIQUE ID NUMBER: 4AL002
 COMBUSTOR:
 ENGINE TYPE: MTF

BYPASS RATIO: 4.8
 PRESSURE RATIO (π_{00}): 17.8
 RATED THRUST (F_{00}) (kN): 33.7

REGULATORY DATA **** DATA SUPERSEDED ** SEE FOLLOWING UID FOR REVISED DATA: 6AL005**

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	10.8	65.0	49.1	1.2
AS % OF ORIGINAL LIMIT	55.3	55.1	64.9	3.7
AS % OF CAEP/2 LIMIT (NO _x)			81.1	
AS % OF CAEP/4 LIMIT (NO _x)			83.1	
AS % OF CAEP/6 LIMIT (NO _x)			84.0	
AS % OF CAEP/8 LIMIT (NO _x)			89.8	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.380	0.26	0.79	19.78	1.0
CLIMB OUT	85	2.2	0.319	0.30	0.97	16.84	0.0
APPROACH	30	4.0	0.117	0.72	3.80	7.22	0.0
IDLE	7	26.0	0.050	3.10	22.43	3.52	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			164	279	1910	1502	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				8.3	57.0	44.6	1.0
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.3
TEMPERATURE (K)	288
ABS HUMIDITY (kg/kg)	0.0063

FUEL

SPEC	Jet A/JP-8
H/C	1.9
AROM (%)	16.5

MANUFACTURER: Rolls-Royce Corporation
 TEST ORGANIZATION: Allison Engine Company
 TEST LOCATION: Indianapolis, Indiana
 TEST DATES: 03/03/1994-19/04/1995

REMARKS

1. For AE3007A1, A1/1, A1/2

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)